Name:

at1110paper_practice_test (v24)

1. Expand the following expression into standard form.

$$(3x - 2)(5x - 8)$$

$15x^2 - 24x - 10x + 16$

$15x^2 - 34x + 16$

2. Solve the equation.

$$(7x - 9)(3x + 4) = 0$$

$x = \frac{9}{7}$ $x = \frac{-4}{3}$

3. Expand the following expression into standard form.

$$(7x + 8)(7x - 8)$$

$49x^2 - 56x + 56x - 64$

$49x^2 - 64$

4. Expand the following expression into standard form.

$$(7x - 9)^2$$

$49x^2 - 63x - 63x + 81$

$49x^2 - 126x + 81$

5. Factor the expression.

$$x^2 + 5x - 36$$

$$(x + 9)(x - 4)$$

6. Factor the expression.

$$25x^2 - 36$$

$$(5x + 6)(5x - 6)$$

7. Solve the equation with factoring by grouping.

$$20x^2 - 15x + 8x - 6 \;=\; 0$$

$$(5x + 2)(4x - 3) = 0$$

$$x = \frac{-2}{5} \qquad x = \frac{3}{4}$$

8. Solve the equation.

$$12x^2 + 74x + 68 \;=\; 5x^2 + 3x - 4$$

$$7x^2 + 71x + 72 = 0$$

$$(7x + 8)(x + 9) = 0$$

$$x = \frac{-8}{7} \qquad x = -9$$